



Pick Your Own Strawberries

Charles Safley, *Professor, Department of Agricultural and Resource Economics*

Ruth Edens, *Research Associate, Department of Agricultural and Resource Economics*

Pick-your-own strawberry operations have become popular with North Carolina consumers. Because of the increase in popularity, industry leaders became curious as to why consumers patronize pick-your-own operations, and how growers could improve their services to strengthen their customer base. To help answer these questions, the North Carolina Strawberry Growers Association, the North Carolina Department of Agriculture and Consumer Services, and the North Carolina Cooperative Extension Service conducted a survey to gather market information, shopper preferences and consumer demographics.

Methodology

An initial entrance and exit questionnaire was developed and pre-tested in 1998. The final survey incorporated grower suggestions and corrected the deficiencies and weaknesses identified during the pretest. The study was conducted during April, May and June of 1999 at eight strawberry-growing locations across North Carolina. The North Carolina Department of Agriculture provided professional enumerators. The enumerators spent a week during peak hours at each of the eight locations. The entrance survey questioned customers' picking histories and preferences,

purchase expectations, and whether they planned to pick their own strawberries or to buy pre-picked strawberries. It also asked questions concerning advertising of the strawberries. The exit questionnaire explored the amount of fruit consumers actually picked or purchased, the strawberry characteristics they preferred, how they were going to use the fruit, if they had picked more or less fruit than expected, and customer demographics.

A total of 1,701 customers completed the survey. All the surveys were conducted at pick-your-own (PYO) operations that grew strawberries using the annual hill production system and also sold pre-picked fruit at a produce stand. The annual hill growing system is a relatively new system that produces strawberries on raised beds. The advantages of this system are ease of picking and a shorter production cycle.

Results

Picking Characteristics

Sixty-six percent of those surveyed indicated that the trip was not their first visit to the strawberry operation, and 45 percent said that they had visited the same operation

earlier in the year. However, 55 percent said that this was their first visit of the year. Only 12 percent of the customers said that they had visited another strawberry operation in 1999.

When asked how many years that they had picked strawberries, fifty-six percent said they had picked strawberries for more than five years; 16 percent had picked between three to five years; 8 percent had picked between one and two years; 7 percent reported it was their first time; and 10 percent said they did not pick strawberries. However, when asked if they were going to pick their own berries or buy pre-picked fruit, 47 percent of the respondents said they were going to buy pre-picked strawberries, and 50 percent indicated that they would pick strawberries (3 percent, no response). When purchase expectations were compared to what was actually bought, most customers (69 percent) picked or bought exactly what they intended to purchase. Of those who bought pre-picked berries, 76 percent bought precisely what they anticipated in quantity.

Slightly more than 21 percent of the pick-your-own customers picked more fruit than they had expected, while 9 percent picked less. Of the consumers who picked more, 56 percent indicated it was due to good fruit quality and 25 percent said it was because the strawberries were easier to pick than expected. Of the customers who picked fewer strawberries than expected, 31 percent said it was because of poor fruit quality, and 18 percent said there were not enough strawberries in the field.

Customers were also asked how much they expected to spend during their visit at the PYO operation. Of the 1,654 customers who responded to this question, 68 percent indicated they intended to spend between \$1 and \$10, and 22 percent reported they intended to spend between \$11 and \$20. When asked if they planned on buying more, less, or about the same quantity of strawberries as in 1998, 58 percent of the customers said that expected to buy about the same, 36 percent would buy more, and 6

percent anticipated buying less.

Concerning the importance of advertising, 76 percent of the respondents said their visit to the strawberry farm was not the result of an advertisement. Of the 23 percent who did respond to an advertisement, 57 percent said a sign or billboard influenced their decision, and 22 percent said their visit was in response to a newspaper advertisement.

Customers who were not influenced by an ad were asked why they visited the specific strawberry operation. Many of these consumers (40.5 percent) indicated they came to the PYO operation because of its convenient location. Quality of the strawberries was the second largest reason (16.1 percent) for visiting the farm, while personal referrals was third (16 percent). Less than 8 percent of the respondents said they were “driving by and decided to stop.” Five percent said they visited for the “farm experience,” and 14.8 percent gave other reasons such as “wanting a family outing,” volume discount, low prices, strawberry varieties and exercise.

Each respondent was asked to rank a list of six strawberry characteristics in order of importance. Freshness was ranked as the most important characteristic. Next came taste, followed by firmness, color, size, and price. The rankings were identical regardless of whether the customers picked their own berries or purchased pre-picked fruit. When asked how they intended to use the fruit, 88 percent of the customers said they intended to consume the strawberries fresh. Freezing strawberries was the second most popular use, followed by making jam or jelly. Other reasons, such as using the fruit as a gift or making pies were last.

On average, PYO customers spent about thirty-seven minutes picking their own strawberries. Overall consumers traveled an average of 19.7 miles to pick or buy strawberries. Thirty-three percent of customers traveled between five and nine miles while 37 percent traveled 10 to 19 miles. See attached mileage table. The mileage was adjusted by excluding

anyone who drove more than 50 miles, and those who just drove by. The adjusted mileage was 10 miles for all customers, both PYO and pre-picked customers. (Tables 1 and 2).

Table1. Miles All Customers Traveled

	Percentage	Average
0-4 miles	21%	2.7
5-9 miles	33%	6.1
10-19 miles	37%	12.2
20-49 miles	13%	26.6
>50 miles	5%	223.2

Table 2. Average Miles Customer traveled

	Unadjusted Miles	Adjusted Miles
PYO Customers	16.3	10
Pre-pick Customers	22.0	10
All Customers	19.7	10

Customer Demographics

When the pick-your-own and pre-picked customers were averaged, 47 percent lived in a city or town, and 45 percent lived in a rural area but not on a farm. Only 6 percent reported living on a farm. The majority (51 percent) of the pick-your-own customers said they lived in

the city while 43 percent lived in a rural area but not on a farm. Again, only 6 percent indicated they lived on farms. Of the pre-picked strawberry customers, 48 percent reported they lived in a rural setting but not on a farm and 46 percent said they lived in a city or town. Only 6 percent indicated they lived on a farm.

Survey questions relating to customer income indicated 16 percent of respondents had incomes between \$30,000 and \$44,999, and incomes over \$75,000. There was also the same percentage of incomes for earning levels of \$60,000 to \$74,999 and \$15,000 to \$29,999. Customers with incomes between \$45,000 and \$59,999 ranked fifth, and consumers with incomes below \$15,000 ranked last. The highest income category for pre-pick customers was \$75,000 or more. For PYO customers, the largest category was \$30,000 to \$44,999. The second highest income bracket was \$30,000 to \$40,000 for pre-pick customers and \$60,000 to \$74,999 for PYO consumers (Table 3).

The most frequent mix of customers was a single female, and the most common type of household was a couple without children. The typical household of the PYO customers had one adult who worked more than 40 hours, while the household of the consumers who bought pre-picked berries had two adults working more than 40 hours. The average age of all the respondents was fifty-two years old, and the majority subscribed to a newspaper and listened to country music. The average distance traveled was 10 miles for all customers.

Table 3. Annual Household Consumer Incomes

Income Levels	All Respondents	Pick-Your-Own	Pre-Pick
Less than \$15,000	5.8%	9.0%	6.0%
\$15,000-\$29,999	12.6%	15.0%	19.0%
\$30,000-\$44,999	16.2%	24.0%	20.0%
\$45,000-\$59,999	11.4%	15.0%	15.0%
\$60,000-\$74,999	13.0%	19.0%	16.0%
\$75,000 or more	16.0%	18.0%	24.0%

Implications

The findings of this survey provide valuable information for strawberry growers in North Carolina. Previously growers focused on the PYO customer. Survey results clearly indicate that there are, in fact, two distinct types of customers: those wanting to pick their own strawberries, and those wanting pre-picked berries. Those wanting pre-picked strawberries are from families with two earners and higher incomes than the PYO customer. Additionally these consumers generally live within a ten-mile radius of the strawberry operation, typically in a city or suburban environment. Historically operations catered to the PYO customer who lives in a rural environment and is supported by a single worker within the family.

Since the survey indicates that word-of-mouth is the most effective advertising medium, and that freshness and taste are the primary inducements for consumers, North Carolina strawberry growers need to make the most of this information. Whereas Florida, California and other strawberry-growing states emphasize durability, size and shelf life, North Carolina growers need to stress the freshness, taste and availability of pre-picked strawberries. They should also reinforce the benefits of fresh consumption for the consumer and ease of freezing. This can be accomplished by carefully selecting locations and the judicious placement of signs emphasizing these characteristics.

N.C. State Economist

Published bi-monthly by the Department of Agriculture and Resource Economics and the Cooperative Extension Service. Address correspondence to:

The Editor, N.C. State Economist
Box 8109, N.C. State University
Raleigh, NC 27695-8109

The N.C. State Economist is now on-line at:
http://www2.ncsu.edu/ncsu/cals/ag_rec/virtual_library.html

**North Carolina Cooperative Extension Service
North Carolina State University
Agricultural and Resource Economics
Box 8109
Raleigh, North Carolina 27695-8109**

NON-PROFIT ORG.
U.S. POSTAGE
PAID
RALEIGH, NC
PERMIT #2353